

**SAF-RC-007**  
**100-N Ancillary Facilities & 190-DR ETF**  
**Analytical Data Requirements - Liquid**  
**FINAL DATA PACKAGE**

**COMPLETE COPY OF DATA PACKAGE TO:**

James Crocker	X5-50	<u>KW 1/8/08</u> INITIAL/DATE
Amy Hood	X5-50	<u>KW 1/8/08</u> INITIAL/DATE
Tom Edmundson	X5-50	<u>KW 1/8/08</u> INITIAL/DATE

**RECEIVED**  
JAN 10 2008  
**EDMC**

**COMMENTS:****SDG 07-T-7162****SAF-RC-007**Rad only      ☒ Chem only      ☐ Rad & Chem☒ Complete      Partial**Waste Site: 100-N Modec**



**SUBMITTED TO:**

Joan Kessner  
Washington Closure Hanford  
2620 Fermi Avenue, MSIN H4-21  
Richland, WA 99354

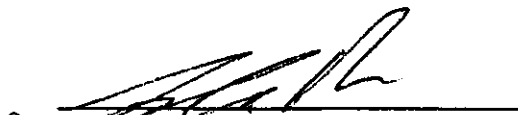


**REFERENCE DATA:**

Client Sample Nos.:	J163Y1
P.O. Number:	Not Available
Sample Location:	100-N Modec
Sample Type:	Drinking Water
Method Reference:	Asbestos in Potable Water by TEM EPA 600/4-83-043, Method 100.1
DCL Set ID No.:	07-T-7162
DCL Sample ID Nos.:	07-41942

The samples indicated on the following data sheet(s) were analyzed by Transmission Electron Microscopy (TEM) for asbestos using the method EPA 600/4-83-043, Method 100.1. Each sample was ultrasonically treated in its original container for 15 minutes to suspend the solids. An aliquot of this suspension was added to 100 mL of de-ionized water and filtered onto a 0.1µm pore size polycarbonate filter. Portions of this filter were coated with carbon and mounted on grids for TEM analysis. Analysis was performed on a Philips CM-12 TEM with EDAX Genesis System providing energy dispersive X-ray analysis (EDXA) capabilities.

Results apply only to portions of samples analyzed and are tabulated on the following data sheet(s). Representative EDXA spectra and selected area electron diffraction (SAED) measurements of asbestos types detected (if any) are included and are referenced to the structure identification numbers listed on the count sheets. The limit of detection (LOD) for this method has been determined to be one asbestos fiber in the total number of grid openings analyzed. The number of openings analyzed is dependent on the sample volume filtered (4 minimum).

  
Patricia Johnson  
Analyst

  
Anna Marie Ristich  
Section Manager

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NOVATO, CALIFORNIA 94945  
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**DataChem Laboratories Test Report  
Asbestos in Drinking Water by TEM**

DCL Sample Set ID: 07-T-7162  
Client: Washington Closure Hanford  
Sample Location: 100-N Modoc

**SAMPLE PREP DATA**


Date Received: 12/21/07  
Date Filtered: 12/21/07  
Time Filtered: 13:00  
Filter Type: PC, 0.1  $\mu$ m  
Filter Size: 47 mm  
Collection Area: 1075 mm<sup>2</sup>

**ANALYSIS DATA**

Date Analyzed: 1/5/08  
Magnification: 10,190 X  
Calibration Constant: 1 cm = 0.98  $\mu$ m  
EDXA Resolution: 151.13 eV  
Accelerating Voltage: 100 keV  
Camera Constant: 31.97 mm-Å

<b>SAMPLE IDENTIFICATION</b>	
Client ID:	J163Y1
DCL ID:	07-41942
Date Sampled:	12/20/2007
Time Sampled:	11:00
Volume (L):	0.050
No. Grid Openings Analyzed:	12
Average Grid Opening Area:	0.0094
LOD (MFL):	0.19
<b>Asbestos Fibers <math>\geq 10</math> microns</b>	
Chrysotile:	0
Amosite:	0
Crocidolite:	0
Actinolite-Tremolite:	0
Anthophyllite:	0
<b>TOTAL ASBESTOS</b>	
Count:	0
Concentration (MFL):	<LOD

ND = None Detected LOD = Limit of Detection MFL = Millions of Fibers per Liter

  
Pamela Johnson  
Analyst

  
Anna Marie Ristich  
Section Manager

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<b>Washington Closure Hanford</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>				<b>RC-007-23</b>		Page 1 of 1	
Collector Edmundson		Company Contact James Crocker		Telephone No. 373-9733		Project Coordinator KESSNER, JH		Price Code <b>7K</b>	
Project Designation 100-N Ancillary Facilities & 190-DR ETF Analytical Data Re		Sampling Location 100-N Modoc		SAF No. RC-007		Data Turnaround <b>15 Days</b>			
Ice Chest No. <b>AFS-04-122</b>		Field Logbook No. EL-1516-12		COA RD4MXX2F00		Method of Shipment Fed Ex			
Shipped To <i>Date Chan Cincinnati</i> Waste Sampling & Characterization <b>TRE 12-20-07</b>		Offsite Property No. <b>A080124</b>		Bill of Lading/Air Bill No. <b>SEE OSPC</b>					
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> Asbestos  <b>Special Handling and/or Storage</b> <i>Cool 40C</i>		Preservation		cool					
		Type of Container		G/P					
		No. of Container(s)		1					
		Volume		120ml 500 ml					
<b>SAMPLE ANALYSIS</b>		Asbestos- BULK-EPA							
Sample No.		Matrix *		Sample Date		Sample Time			
J163Y1 07-41942		WATER		12-20-07		1100		✓	
<b>CHAIN OF POSSESSION</b>				<b>SPECIAL INSTRUCTIONS</b>				<b>Matrix *</b> S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Time WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From <i>WCH</i> Date/Time		Received By/Stored In Date/Time		Shipping COA- RD4MXX2F00					
<i>JR Edmundson 12-20-07 1500</i>		<i>Fed Ex</i>							
Relinquished By/Removed From Date/Time		Received By/Stored In Date/Time							
<i>Fed Ex</i>		<i>EPH 12/20/07 12:08</i>							
Relinquished By/Removed From Date/Time		Received By/Stored In Date/Time							
Relinquished By/Removed From Date/Time		Received By/Stored In Date/Time							
Relinquished By/Removed From Date/Time		Received By/Stored In Date/Time							
Relinquished By/Removed From Date/Time		Received By/Stored In Date/Time							
Relinquished By/Removed From Date/Time		Received By/Stored In Date/Time							
<b>LABORATORY SECTION</b>		Received By <i>[Signature]</i>		Title <i>RSD</i>		Date/Time <i>12/21/07 12:28</i>			
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method		Disposed By		Date/Time			